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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,861	02/08/2005	Stan Nowak	ASEFF.0101	6378

7590
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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/511,861

Applicant(s)

NOWAK ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-11 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,9-11 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/15/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

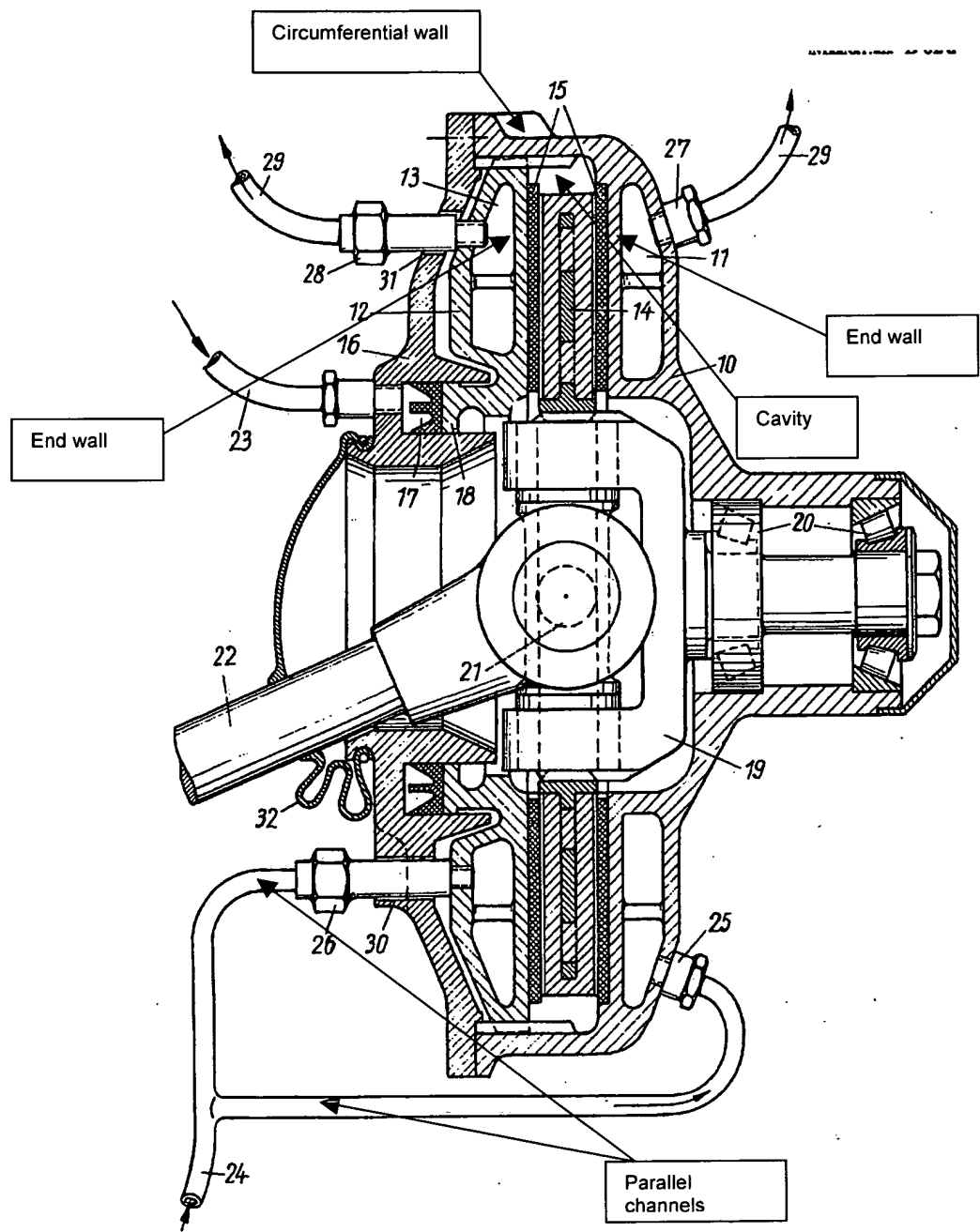
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 11, 15-17, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by DE-1160319 (DE'319).

Re: claims 1-3, 15, 16, and 20. DE'319 shows in the figure a fluid cooled brake housing 10 for a brake system that includes friction pads 15 and a rotatable element 14 to be braked, the brake housing comprising a circumferential wall as labeled and two axial end walls as labeled that define a cavity as labeled for housing the friction pads and rotatable element, an opening in the at least one of the axial end walls shown surrounding element 19 through which a portion of the rotatable element can extend, a fluid flow path 13 formed around the periphery (the inner periphery) of the circumferential wall such that the fluid flow path is external to the defined cavity as shown, a fluid inlet 24 in fluid communication with the fluid flow path, a fluid outlet 29 in fluid communication with the fluid flow path, a supply of cooling fluid connected to element 24 in fluid communication with the fluid inlet and the fluid outlet, the cooling fluid flowing from the fluid inlet through the fluid flow path to the fluid outlet thereby cooling the entire brake housing, and a seal means 17,32 for sealing the opening such

that the cavity can be at least partially filled with a volume of lubricating fluid 23 to provide a wet brake housing.



Re: claim 11. DE'319 shows the housing comprising a volume of lubricating fluid or fluid surrounding element 19 sealed within the cavity and at least partially covering the rotatable element and the lubricating fluid separate from the cooling fluid by virtue of the structure surrounding element 13.

Re: claim 17. DE'319 shows in the figure the limitation wherein the fluid flow path includes a plurality of parallel channels as labeled in the annotated figure on pg. 3 of the instant Office action extending between the fluid inlet and the fluid outlet.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 10, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE'319 in view of US Patent 5445242 to Pogorzelski et al.

Re: claims 9 and 19. DE'319 is silent with regards to how the cooling fluid is circulated.

Pogorzelski et al. teach in figure 1 a pump 94 for pumping the cooling fluid through the supply and the fluid flow path.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified one of the ends of the fluid inlet of DE'319, to have been connected to a pump, as taught by Pogorzelski et al., in order to provide a

means of circulating the cooling fluid through the cooling system in order to effectively prevent overheating of the brake device.

Re: claims 10 and 18. DE'319 is silent with regards to a heat exchanger being in fluid communication with the supply for cooling the cooling fluid.

Pogorzelski et al. teach in figure 1 a brake device including a heat exchanger 96 in fluid communication with the supply for cooling the cooling fluid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cooling system of DE'319 to have included a heat exchanger, as taught by Pogorzelski et al., in order to provide a means of controlling heat dissipation within the system.

Response to Arguments

5. Applicant's arguments filed 1/15/07 have been fully considered but they are not persuasive.

Applicant argues that DE'319 does not anticipate claim 1 because it fails to include the fluid flow path "in the circumferential wall external to the cavity of the housing" as discussed in lines 9-10 of pg. 11 of the Remarks. Examiner notes that the argument is more specific than the claim language. Examiner notes that claim 1 does not require that the fluid flow path be "in the circumferential wall." Instead, claim 1 requires that the fluid flow path be "formed around the periphery of the circumferential wall." Examiner notes that the fluid flow path 13 of DE'319 accommodated in an annular jacket is formed around the periphery and, particularly, the inner periphery of the circumferential wall labeled on pg. 3 of the Office action. Examiner notes that the

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periphery is defined by Merriam Webster Online as the “outward bounds of something.”

Examiner further notes that the bottom surface of the circumferential wall may be considered as one of the outward bounds of the wall. The fluid path 13 being annular in configuration extends along the entire inner periphery of the circumferential wall.

Therefore, Examiner maintains that the fluid flow path is formed around the periphery of the circumferential wall. With regards to the fluid flow path being external to the cavity, Examiner maintains that the cavity has been redefined as set forth in the annotated drawing on pg. 3. In light of the newly interpreted location of the cavity, it is apparent that the fluid flow path is external to the cavity.

Applicant then argues that DE'319 does not anticipate claim 1 or claim 20 because it does not show a seal means for sealing the opening of the cavity in order to create a wet brake system. Examiner notes that the opening is shown surrounding element 19. Elements 17 and 32 clearly seal or block the passage of fluid from and into the area surrounding element 19. The claim recites the wet brake limitation in functional terms. Since the seal means 17,32 blocks fluid passage, Examiner maintains that the seal means of DE'319 is capable of sealing such that the cavity can be partially filled with lubricating fluid to provide a wet brake housing. Examiner also notes that the argument that since the prior art of DE'319 teaches the use of a wet brake system, it is doubtful that DE'319 would seek to teach a similar wet brake is not persuasive. First, Applicant's doubt that DE'319 would not teach a wet brake is purely speculative. Second, it does not matter whether DE'319 actually teaches a wet brake since claim 1 merely requires that the seal means be capable of sealing to provide a wet brake.

Accordingly, the rejections have been maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
March 7, 2007

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683
3/7/07